Approved or use influigh 04/30/2003. Until 0631-0032 U.S. Patient and Trademark Office; U.S. DPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Attorney Docket No. UMY-052DV2 UTILITY First Inventor | Craig C. Mello

PATENT APPLICATION RNA INTERFERENCE PATHWAY GENES AS TRANSMITTAL TOOLS FOR TARGETED GENETIC INTERFERENCE (Only for new nonprovisional applications under 37 CFR 1 53(b)) Express Mail Label No. EV 354229072 US Mail Stop Patent Application APPLICATION ELEMENTS Commissioner for Patents ADDRESS TO: Post Office Box 1450 See MPEP chapter 600 concerning utility patent application contents. Alexandria, VA 22313-1450 CD-ROM or CD-R in duplicate, larga table or Computer Program (Appendix) Fee Transmittal Form (e.g., PTO/SB/17) Committee or printed and a dualicate for fee process Applicant claims small entity status.
 See 37 CFR 1.27. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) [Total Pages 52 a. X Computer Readable Form (CRF) x Specification (preferred arrangement set forth below)

- Descriptive title of the invention

- Cross Reference to Related Applications

- Statement Regarding Fed sponsored R & D

- Reference to sequence listing, e table, b. Specification Sequence Listing on: CD-ROM or CD-R (2 copies); or ii. X Paper Statements verifying identity of above copies or a computer program listing eppendix

- Background of the Invention

- Brief Summary of the Invention

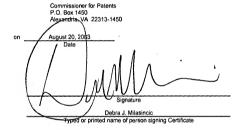
- Brief Description of the Drawings (if filed) ACCOMPANYING APPLICATIONS PARTS Assignment Papers (cover sheet & document(s)) Power of 37 CFR 3.73(b) Statement t n (when there is an assignee) - Abstract of the Disclosum X Drawing(s) (35 U.S.C. 113) Total Sheets 21 English Translation Document (if applicable) 5 Oath or Declaration Information Disclosure Conies of IDS Total Sheets 12 Statement (IDS)/PTO-1449 Citations Newly executed (original or copy) 13 X Preliminary Amendment b. X Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) Copy of a Substitute Sequence Listing as required under 37 C.F.R. 1,824 as filed on June 18, 2001 14 x DELETION OF INVENTOR(S) 15. Signed statement attached deleting inventor(s) named in the prior applic see 37 CFR 1.63(d)(2) and 1.33(b). Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). 16 Applicant must attach form PTO/SB/35 or its equivalent X Other: Copy of a Verified Statement Claiming Small Entity Stutus (37 C.F.R. 1.9(f) and 1.27(d)) – 17 Nonprofit Organization; Copy of Revocation and Application Data Sheet. See 37 CFR 1.76 New Power of Attorney 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76: Continuation X Divisional Continuation-in-part (CIP) of prior application No.; Teresa E. Strzelecka 1637 Prior application information: Examiner Art Unit: For CONTINUATION or DIVISIONAL APPS only. The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is harbly incorporated or discourable o 19. CORRESPONDENCE ADDRESS 00959 X Customer Number or Bar Code Label or X Correspondence address below LAHIVE & COCKFIELD, LLP Nama DeAm F. Smith, Esq Address 28/State Stree City Boston State MA Zip Code | 02109 Country us Telephone (617) 227-7400 Fax (617) 742-4214 asincio Name (Print/Type) Debra J. Mil Registration No. (Attorney/Agent) 46,931 Signature Date August 20, 2003 I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV 354229072 US in an envelope addressed to: Commissioner for Paterits, Mail Stop Patent Application, Post Office Box 1450, Alexandria, VA 22313-1450, on the date shown below. Signature: (Debra J. Mitasincic) Dated: August 20, 2003

PTO/SB/17 (05-03)
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| FEE TRANSMITTAL for FY 2003 Effective 01/01/2003, Patient files are subject to annual revision. | | | Complete if Known | | | | | |
| | | | cation | Numbe | Not Yet Assigned | Not Yet Assigned | | |
| | | | Date | | Concurrently Herewith | Concurrently Herewith | | |
| | | | Named | Inven | tor Craig C. Mello | Craig C. Mello | | |
| and the contract of the contra | | | iner Na | ame | Not Yet Assigned | Not Yet Assigned | | |
| X Applicant claims small entity status. See 37 CFR 1.27 | | | -it | | N/A | N/A | | |
| | | Art Ur | | akot No | | | | |
| | _ | Attorn | ey Do | cket No | | | | |
| METHOD OF PAYMENT (check all that apply) | - | | | FEE | CALCULATION (continued) | | | |
| Check Credit Money Other None | 3. / | ADDITIO | ONAL | FEES | | | | |
| x Deposit Account | | | | | | | | |
| Deposit | | e Entity | Small | Entity | | | | |
| Account 12-0080 | Fee Code | Foo (\$) | Fee | Fee (\$) | Fee Description | Fee Paid | | |
| Deposit | | | 1 | | | recraiu | | |
| Account Lahive & Cockfield, LLP | 1051 | 130 | 2051 | | Surcharge - late filing fee or oath | | | |
| The Director is hereby authorized to: (check all that apply) | 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet. | 1 | | |
| X Charge fee(s) indicated below X Credit any overpayments | 1053 | 130 | 1053 | | Non-English seecification | | | |
| Charge any additional fee(s) during the pendency of this | 1812 | | 1812 | | For filing a request for exparte reexamination | | | |
| application | | 2,040 | 1 | | Requesting publication of SIR prior to | | | |
| Charge fee(s) indicated below, except for the filling fee | 1804 | 920* | 1804 | 920 | Examiner action | | | |
| to the above-identified deposit account. | 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after Examiner action | | | |
| FEE CALCULATION | 1251 | 110 | 2251 | | Extension for reply within first month | | | |
| 1. BASIC FILING FEE | 1252 | 410 | 2252 | | Extension for reply within second month | | | |
| Large Entity Small Entity | 1253 | | 2253 | | Extension for reply within third month | | | |
| Fee Fee Fee Fee Fee Description Fee Paid | 1254 | 1,450 | 2254 | 725 | Extension for reply within fourth month | | | |
| 1001 750 2001 375 Utility filing fee 375.00 | 1255 | 1,970 | 2255 | 985 | Extension for reply within fifth month | | | |
| 1002 330 2002 165 Design filing fee | 1401 | 320 | 2401 | | Notice of Appeal | | | |
| 1003 520 2003 260 Plant filing fee | 1402 | | 2402 | | Filing a brief in support of an appeal | | | |
| 1004 750 2004 375 Reissue filing fee 1005 160 2005 80 Provisional filing fee | 1403 | 280 1,510 | 2403 | | Request for oral hearing | { | | |
| | 1452 | 110 | 2452 | | Petition to institute a public use proceeding Petition to revive – unavoidable | | | |
| SUBTOTAL (1) (\$) 375.00 | 1453 | 1,300 | 2453 | | Petition to revive - unintentional | | | |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE | 1501 | | 2501 | | Utility issue fee (or reissue) | $\overline{}$ | | |
| Extra Fee from Claims below Fee Paid | 1502 | 470 | 2502 | | Design issue fee | | | |
| Total Claims 17 -20** = 0 x = 0.00 | 1503 | 630 | 2503 | | Plant issue fee | | | |
| Independent 8 -3** = 5 x 42 = 210,00 | 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | | | |
| Claims 5 -3 - 5 1 42 - 210.00 Multiple Dependent 140 = 140 | 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | | | |
| Large Entity Small Entity | 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Strat | | | |
| Fee Fee Fee Fee Fee | 8021 | 40 | 8021 | 40 | Recording each patent assignment per | | | |
| Code (\$) Code (\$) rea Description 1202 18 2202 9 Claims in excess of 20 | | | | | property (times number of properties) Filing a submission after final rejection | | | |
| 1201 84 2201 42 Independent claims in excess of 3 | 1809 | 750 | 2809 | 313 | (37 CFR 1.129(a)) | | | |
| 1203 280 2203 140 Multiple dependent claim, if not paid | 1810 | 750 | 2810 | 375 | For each additional invention to be examined (37CFR 1.129(b)) | 7 | | |
| 1204 84 2204 42 ** Reissue independent claims | 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) | | | |
| 1205 18 2205 9 "Reissue claims in excess of 20 | 1802 | 900 | 1802 | | Request for expedited examination of a design application | | | |
| and over original patent | Other | fee (spe | cify) | | ora design appression | | | |
| SUBTOTAL (2) (\$) 350.00 | ı | uced by I | | ling Fee | Paid SUBTOTAL (3) (5) | 0.00 | | |
| "or number previously paid, if greater, for Reissugs, see above | | _1 | | | | | | |
| SUBMITTED BY | | 71 | | | Complete (if applicable) | | | |
| Name (Print/Type) Debra J. Milasincic, 5sp. | Regist | tration No | | 6,931 | Telephone (617) 227-7400 | | | |
| Signature | D | (t | / | | Date August 20, 2003 | 1 | | |
| | | | | | | | | |
| I hereby certify that this correspondence is being deposed with the IJ S. Posha Service as Express Mail, Airbill No. EV 354229072 US, in an envelope addressed to: Commissioner for Patents, Mail Stop Patenta, Apolication, P.O. Box 1450, Ajezandria, VA 22313-1450, on | | | | | | | | |
| in an envelope addressed to: Commissioner for Patents, Mail Stop Patent Application, F.O. Box 1450, Alexandria, VA 22313-1450, on | | | | | | | | |
| the date shown below. | | | | | | | | |
| Dated: August 20, 2003 Signature: | _ | 1 | | <u>~V</u> | (Debra J. Milasincic) | | | |
| | _ | | | | | | | |

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Application Data Sheet